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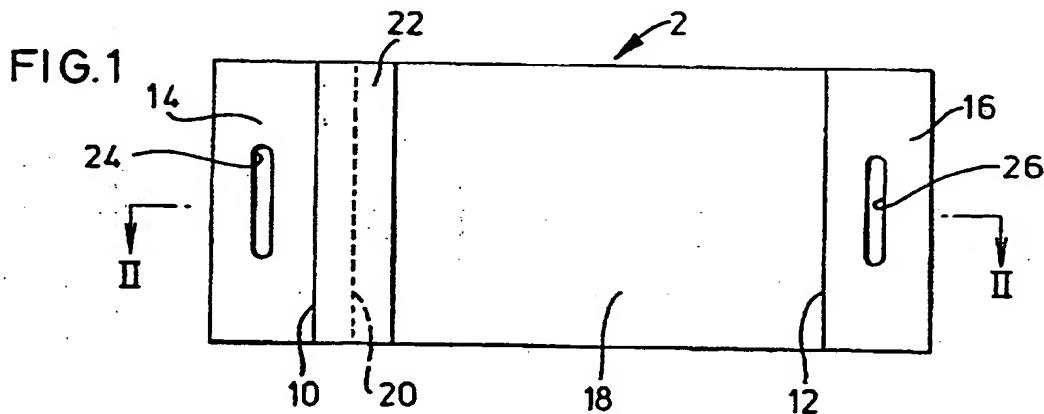
(56) Documents Cited

GB 2126984 A	GB 1402962 A	GB 1152310 A
GB 1142042 A	US 5061086 A	

(58) Field of Search
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INT CL⁶ B65D 27/30 33/06 33/08 33/10 33/12 33/34
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(54) **Abstract Title**
Tamper-evident bag with carrying handles

(57) A tamper-evident bag suitable for large quantities of coins has at least two carrying handles 24, 26 at spaced-apart regions of its body. The handles may be hand holes in the thermoplastics material of the bag at the top and bottom ends of the bag as shown or at each end of the top seam of the bag, Figures 3 and 4. At least one region of the bag may be colour-coded for identification purposes, eg by means of an extra ply of coloured material which may be in an end region in which a handle is formed. Instead of hand holes, the handles may be separate and attached to the bag. Handles may be arranged so that the bag can be folded to superimpose the handles allowing them to be held by a single hand. The bag may have heat-sealed edges and an opening 20 closed by a tamper-evident flap 22.



At least one drawing originally filed was informal and the print reproduced here is taken from a later filed formal copy.

This print incorporates corrections made under Section 117(1) of the Patents Act 1977.

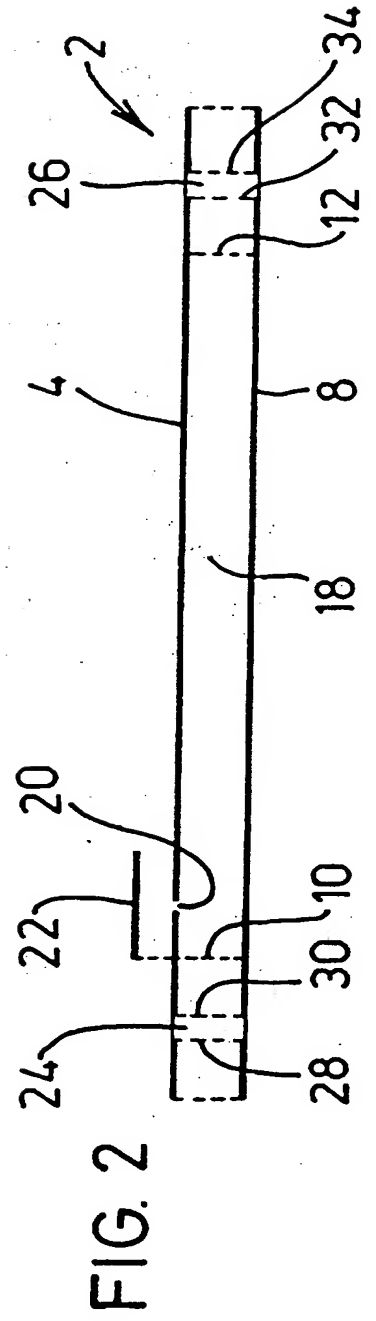
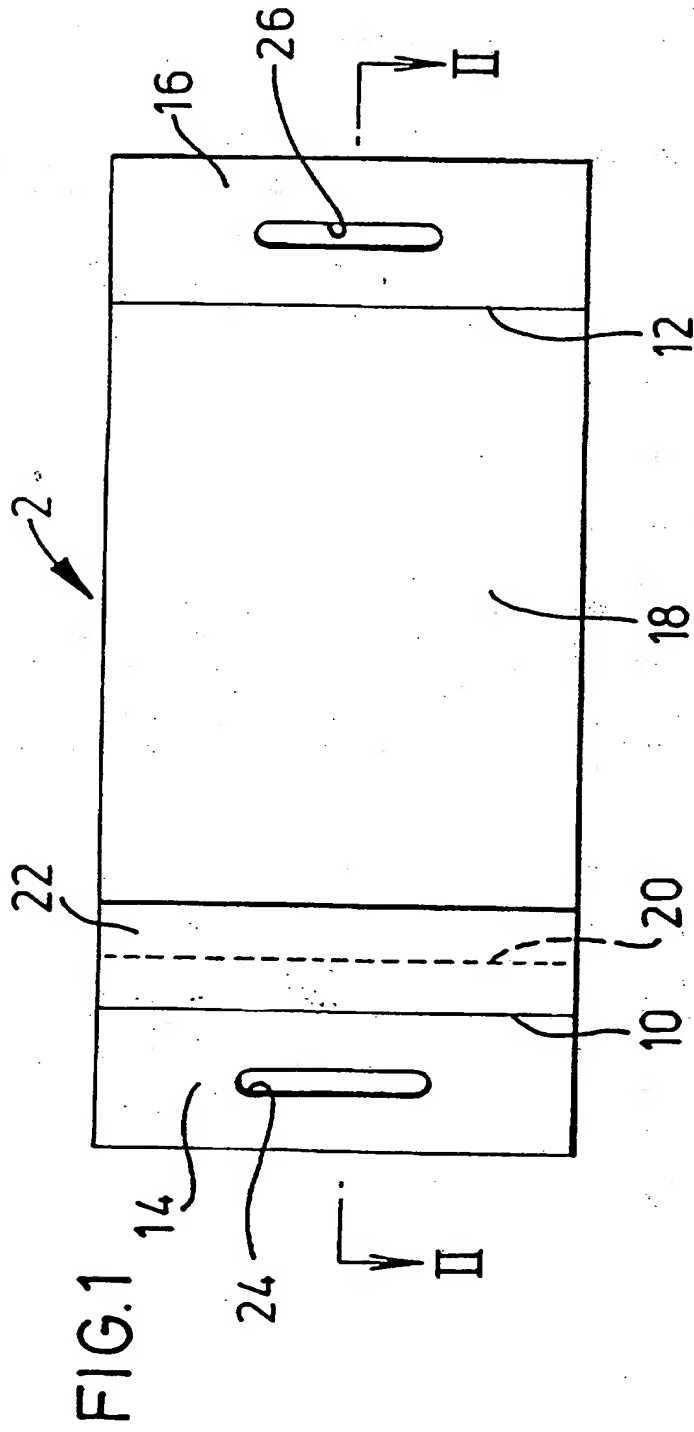


FIG. 3

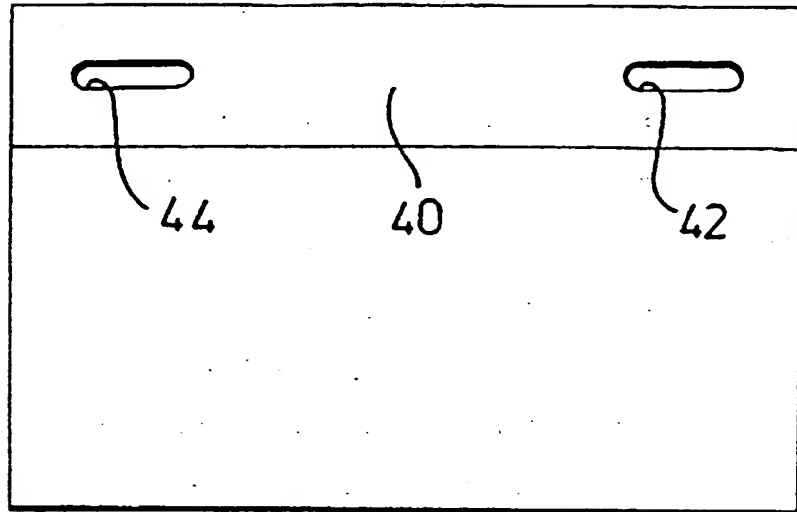
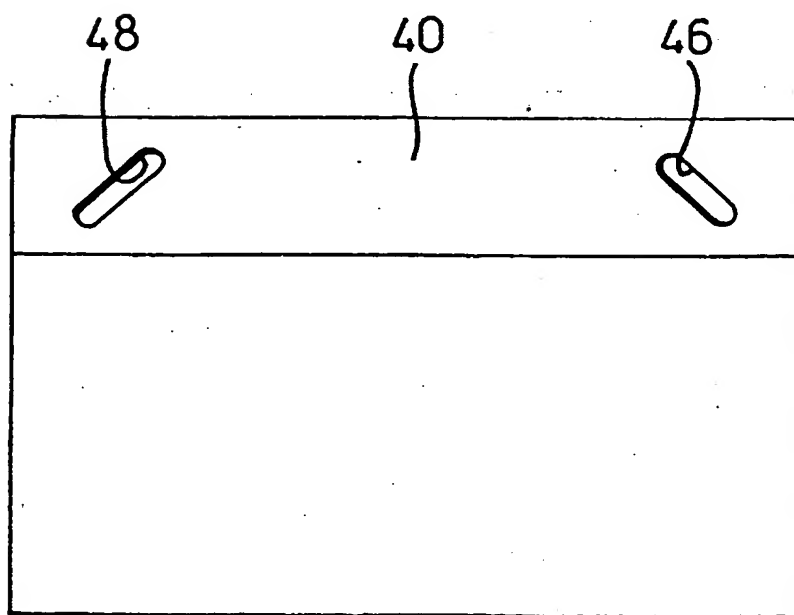


FIG. 4



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"High Strength Coin Bag"

This invention relates to coin bags, and in particular to bags which are intended for carrying large quantities of coin, as used, for example, by banks.

It is known to provide coin bags of plastics material, with a carrying handle produced in a reinforced region at one end of the bag, the handle comprising an aperture through the reinforced region, and a "tamper evident" seal in another region of the bag, usually adjacent the same end as the handle, so that any interference with the contents during transit, can be easily detected.

When large quantities of coin have to be carried, it is necessary to use a stronger material, or increase the reinforcement, in the handle region, in order to support the weight of the contents, and this will clearly result in higher costs of production, particularly over large quantities of bags.

Accordingly, the present invention provides a tamper evident bag comprising a flexible body having a closure, and at least two handles at spaced apart regions of the body, so that the body can be carried by supporting it in each of the said regions.

Preferably the bag has a pair of handles which are so arranged that the bag can be folded, if the contents

permit, so that the handles can be superimposed, for one-handed carrying.

Such a construction provides greater carrying capacity, in terms of weight, for a given strength of bag material.

Preferably, the body of the bag is rectangular and is formed from superimposed layers of thermoplastic material, such as a polymer whose edges are heat sealed together in order to enclose the space between them. Preferably, the handles are formed as apertures in extensions of the main body, their edges also being heat sealed together for strength.

Preferably, the closure is a tamper evident closure, such as that shown in European patent publication no. 0493465 or 0628007.

In a preferred embodiment of the invention, at least one end of the bag is colour coded, for example by including an extra ply of coloured material in the handle region, and this may be applied at one or both ends of the bag.

Some embodiments of the invention will now be described by way of example, with reference to the accompanying drawings, in which:

Figure 1 is a plan view of a bag in accordance with the invention,

Figure 2 is a cross-section along the line II-II of Figure 1; and

Figures 3 and 4 are plan views of other possible

forms of bag.

Referring to the drawings, the bag 2 is made up of two rectangular plies 4 and 8 of high strength polymer film, which are welded together all around the periphery, and also along lateral lines 10 and 12 extending across the width of the bag, as indicated by the dashed lines in Figure 2.

The effect of this is to form two completely enclosed regions 14 and 16 at each end of the bag, as well as the main body 18 which will, in use, comprise the actual storage compartment of the bag.

A lateral slit 20, extending across the upper ply 4 of the bag, as seen in Figure 2, provides access to the interior 18, and a flap 22 carrying a tamper evident closure, is welded to the bag along the line 10, so that it overlies the opening 20 to enable the bag to be sealed in a known fashion.

Apertures 24 and 26 are formed in the end regions 14 and 16 of the bag, respectively, so as to extend through both plies of material, and as shown, these are formed as elongate slots, the edges of which are heat sealed as indicated at 28, 30, 32 and 34 in Figure 2, in order to strengthen the construction. As shown, these slots are in the central region of each area 14 and 16, but it will be appreciated that they may be positioned differently, as appropriate, depending on the overall shape of the bag. In any case, in use, once the bag has been sealed with the contents in place, it can be carried by folding it in half

so that the two slots 24 and 26 are superimposed to form a handle, providing a much more robust bag structure than could be obtained with a single handle.

If the nature of the contents is such that folding is impossible, the two handles can be gripped separately, which greatly facilitates the loading and unloading of heavy bags from vehicles, for example. Figures 3 and 4 illustrate other forms of bag which may be more appropriate when the contents are so heavy (e.g. large quantities of coins) that the bag may need to be carried by two handlers. In figure 3 both handles 42, 44 are formed in a region 40 on the same side of a relatively large bag, but they are positioned at opposite ends so that they can be held separately, if necessary. In Figure 4 the handles are in similar positions, but are angled across the corners of the bag.

Although the illustrated embodiment has integrally formed handles, it will be appreciated that the handles could be formed separately (e.g. from strips of material) and attached during manufacture, to each end of the bag.

Where the closure flap 22 had been illustrated as providing one possible kind of seal for the bag, it will be appreciated that many different kinds of seal could be incorporated, for example of the kind in which an adhesive layer, or an additional membrane is provided, inside the mouth of the bag to provide an additional seal to the overlapping interior surfaces.

For easy identification, the bag may carry indicia

in specific colours so as to indicate the particular kind of contents (e.g. denomination of coin) and/or one or both of the end regions 14, 16 may be colour coded, for example by incorporating an additional ply of translucent coloured material. A specially printed area may also be provided which can be written on, or an external document pocket may be formed in known fashion, for example by incorporating an extra layer of plastics material.

CLAIMS

1. A tamper evident bag comprising a flexible body having a closure, and at least two handles at spaced apart regions of the body, so that the body can be carried by supporting it in each of the said regions.
2. A tamper evident bag according to claim 1 having at least one pair of handles which are so arranged that the bag can be folded to superimpose the handles.
3. A bag according to claim 1 or claim 2 in which the bag is rectangular with a handle at each of two opposite sides of the body.
4. A bag according to claim 1 or claim 2 in which the bag is elongated in shape, and has a handle adjacent each end.
5. A bag according to claim 1 in which the bag is formed from superimposed layers of thermoplastics material whose edges are heat-sealed together.
6. A bag according to claim 5 in which the handles are formed as apertures in extensions of the body at each end, the extensions being formed by additional lines of heat-sealing.

7. A bag according to claim 6 in which the layers are also heat-sealed together around the edges of the apertures.
8. A bag according to any of claims 1 to 3 in which the handles are formed separately from the bag and attached to corresponding positions at each end.
9. A bag according to any preceding claim in which the closure provides a tamper-evident seal.
10. A bag according to any preceding claim in which at least one region of the bag is colour-coded for identification purposes.
11. A bag according to claim 10 in which the bag material is translucent or transparent and the colour coding is provided by including an extra ply of coloured material in the said region.
12. A bag according to claim 10 in which the handles are formed in the end regions of the bag, and the colour coding is also provided in at least one of the said regions.
13. A tamper-evident bag substantially as herein described with reference to the accompanying drawings.



Application No: GB 9819909.4
Claims searched: 1-13

Examiner: Stephen Smith
Date of search: 18 November 1998

Patents Act 1977
Search Report under Section 17

Databases searched:

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK CI (Ed.P): B8K(KH)

Int CI (Ed.6): B65D 27/30, 33/06, 33/08, 33/10, 33/12, 33/34

Other: ONLINE:WPI

Documents considered to be relevant:

Category	Identity of document and relevant passage	Relevant to claims
X	GB 2126984 A (GOOCH) lines 1-30 of page 2	1-6, 9
X	GB 1402962 (ROTTNEROS) lines 11-22 of page 2	1-3, 5, 9
X	GB 1152310 (RANSON) line 72 of page 1 to line 14 of page 2	1-3, 5-7, 9
X	GB 1142042 (KALLE) line 82 of page 1 to line 8 of page 2; lines 48-54 of page 2	1-3, 5-7, 9
X	US 5061086 (VALLERGA) lines 38-56 of column 4	1-4, 8, 9

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.

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